United Marine Training Center

2120 Leon Guinto Street, 1004 Malate,
Manila Philippines
www.umtc.com.ph

Loading-Unloading Procedures and Principles of Draught Survey for Bulk Carriers

This advanced course is designed for senior Deck Officers of Bulk Carriers to aid them in Planning, conducting and documenting Loading procedures

Intended Learning Outcome/s

After the training/assessment, the participant/s shall be able to:

- Explain the longitudinal stress acting during loading and unloading with regards to different cargoes
- Explain and understand the necessity for hatch cover inspection and tests
- Explain the differences between high and low density cargo
- Explain and understand the angle of repose with regards to the cargo and loading procedures
- Explain and understand the different loading procedures for high and low density cargoes
- Explain, understand and calculate the ballast Loading/Discharging ratio
- Demonstrate the preparation of a loading / discharging plan for bulk cargoes on hand of a seven hatch bulk carrier.
- Conduct a toolbox meeting for a given cargo to be loaded
- Understand and explain why draughts survey are necessary for bulk cargoes
- Explain the concepts of hydrostatics, buoyancy, and Archimedes' principle, Areas and Volumes
- Explain the different terms to be used: LCF, MTC, TPC, Displacement, Deadweight, Light ship weight and LBP.
- Explain and calculate the different parameters used for the draught survey
- Establish the correct weights of oils on board
- Explain the correct use of Marine hydrometers used for the draught survey
- Explain and calculate of vessels displacement from draught readings
- Explain the perpendicular correction
- Explain density and its correction
- Explain and calculate the 1st and 2nd trim correction Nemoto's correction
- Explain the influence of trim on the draught survey and later calculation of the amount of cargo loaded.
- Effect of "CONST" for corrected of cargo calculation
- Explain and fill out the formal draught survey documentation
- Explain cumulative errors
- Calculate a complete initial and final draught survey
- Explain the mandatory requirements for the carriage of cargoes that might get liquefied.

For Inquires and reservation, please contact us:
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- Explain the international grain code
- Implement the necessary requirements if loading Grain in USA, Canada and Australia
- Implement the necessary and required calculation if loading Grain and Grain products
- Calculate the residual area using the US NCB method
- Calculate the approx. angle of list if grain cargo shifts
- Calculate the Heeling arm curve
- Prepares the required statical stability curve for the given grain condition
- Analysis the results calculated with regards to the mandatory requirements of the National Cargo Bureau
- Know how to prevent cargo damages and to avoid any claims.

Course Prerequisite & Qualification

Officers and Masters assigned to Bulk Carriers

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